ABSTRACT

The placement of the elements (mass points or rigid bodies having inertia) of a model expressing a robot 1 determined according to a first geometric restrictive condition from an instantaneous desired motion of the robot 1 is defined as a first placement, and provisional corrected instantaneous desired motions corresponding to a second placement and a third placement having predetermined relationships with the first placement are determined. The position/posture of a predetermined part 3 (body) of the robot 1 are determined by weighted averages of the position/posture of the aforesaid provisional corrected instantaneous desired motions. Thus, the motion of an instantaneous desired gait created using a dynamic model is properly corrected thereby achieving both improved dynamic accuracy between the motion and a floor reaction force of the instantaneous desired gait and a minimized change in the posture of a predetermined part, such as the body, of the robot without using a dynamic model.